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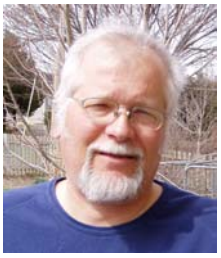

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Plant Disease in Kansas

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HIGHLIGHTS

Stripe rust of wheat has reached moderate to high levels in many areas of Kansas. It appears to be the most important biological threat to the state's wheat crop.

Other important diseases to wheat crop were powdery mildew and wheat streak mosaic.

Frost damage to wheat was observed in scattered locations in the western half of Kansas.

Asian soybean rust has not been reported in Florida soybeans some of which are near bloom.

OUTLOOK

Unseasonably warm temperatures of the past week likely will keep stripe rust of wheat in check. New infection may be limited although the amount of rust inoculum is high.

Take all and other root and crown diseases should become apparent as wheat begins the dough filling stage. Scab head disease may also be observed at this time.

FOREST STANDS

In recent survey of oak sites in Lyon, Franklin, Wyandotte, and Doniphan counties, oaks were assessed to be in pretty good shape (J. Appel, KDA). Foliage was green and fully expanded. A little anthracnose was observed in Lyon County. Tip blight was samples at the site on burr oak but remains unidentified. *Hypoxylon* canker that was observed at some of these sites in the early spring was difficult to assess because of canopy growth. Frost damage was observed in the Wyandotte County site on Northern red oak. Symptoms of oak wilt and sudden oak death were not observed on any oak species.

WHEAT

Wheat stripe rust is by far the most important disease to the Kansas wheat crop. In a survey last week, the disease was found to be common to fields and at moderate to high levels in west central, southwest, central, south central, and east central Kansas (J. Appel).

Figure 1. Stripe rust of wheat

In the few fields visited in central Kansas counties of Saline and Ellsworth, stripe rust was at 15 to 25% severity on the flag leaf. To the west in the counties of Ness, Lane, Scott, Wichita, and Greeley, stripe rust was more severe. Incidences varied from field to field probably the result of variety resistance. Some fields had very little rust and were believed to be Jagger based on plant characteristics. Other fields had high levels of disease with incidences of 100 per cent and leaf severities of 15 to 80 per cent. The counties with highest disease pressure were Lane, Scott, and Wichita. Growth stage varied from early head to a few fields flowering.

In southwest Kansas the assessment was much the same. Some fields escaped rust whiles other fields nearby had high levels of disease. It did appear that in counties such as Meade, Grant, and Seward, stripe rust was not much of a problem and likely related to dry conditions this spring. Hamilton and Stanton counties had some fields with 55 to 80 per cent severities.

In a few fields visited in south central Kansas, stripe rust was at 70 to 90 per cent severity at about 1/3 of the sites visited. Eastern Kansas had less disease pressure with about 10% of the flag leaf infected in fields in Lyon and Franklin counties.

Other diseases of significance were wheat streak mosaic and powdery mildew. In the far west county of Greeley, wheat streak mosaic was present in the majority of the fields at levels of 10 to 50 per cent incidence. A few other reports of wheat streak were made in Scott, Wichita, and Meade counties. Powdery mildew which like stripe rust has been favored by cool temperatures was at significant levels in Grant County in south west and Doniphan and Franklin counties in eastern Kansas. In Doniphan County, some fields had 5 to 10 per cent severity of the flag leaf.

Reports of other diseases were speckled leaf blotch, leaf rust, barley yellow dwarf virus, and dryland foot rot. Bacterial blight was also suspected but was not confirmed. Symptoms were difficult to distinguish from possible freeze injury. Speckled leaf blotch was at 5 per cent of the flag leaf in a varietal plot in Ellsworth County and in fields in Meade and Reno counties. Leaf rust was trace in most of the state except in south central Kansas where some fields in Kiowa and Pratt counties had 3-10 severities on the flag leaves. Barley yellow dwarf had reports in south central and eastern Kansas of 5-10 per cent incidence in a few select fields.